

REMARKS

Claims 1 - 19 are pending and under consideration. Claims 1, 7, 10 and 17 have been amended to clarify the claimed invention.

Independent Claims 1, 7, 10 and 17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As explained below, Applicant has amended the claims so as to clarify the claimed subject matter. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Claim 1 has been amended to state that "variable length coding of said second assigned data block begins after variable length coding of said first assigned data block has ended, even if encoding of the second assigned data block is completed prior to the end of variable length coding of the first data block." This is support by the specification at page 40, lines 16-23, which states: "[I]n the third processor 2-3, when the encoding MB2-ENC of the macroblock 2 [second block] is ended, the variable length coding MB0-VLC and MB1-VLC of the previous macroblock 0 and macroblock 1 [first block] have not yet been ended, therefor, the end of the processing is awaited. When the variable length coding of the . . . the macroblock 1 [first block] is ended, the variable length coding MB2-VLC of the macroblock 2 [second block] is carried out." This is further illustrated in FIG. 18, which shows that even though encoding of the second block (MB2-ENC) has ended, variable length coding of the of the second block does not begin until variable length coding of the first block has ended. Because Claim 1 as amended is now definite and particularly point out and distinctly claim the subject matter which applicant regards as the invention, Applicant respectfully requests that the §112 rejection of this claim be withdrawn.

Independent claims 7, 10 and 17 have each been amended in a similar manner to the amendment to claim 1. Thus, for the same reasons recited above with respect to claim 1, claims 7, 10 and 17 as amended are each definite and particularly point out and distinctly claim the subject matter which applicant regards as the invention. Accordingly, Applicant respectfully requests that the §112 rejection of these claims be withdrawn as well.

Claims 1 - 19 were rejected under 35 U.S.C. §103 as being unpatentable over Watanabe et al.¹ in view of Fujiwara et al.² and Allen et al.³ Applicants respectfully disagree and submit that claims 1-19 are patentable.

¹ U.S. Pat. No. 5,675,331.

² U.S. Pat. No. 5,689,254.

³ U.S. Pat. No. 5,583,500.

In particular, each of the independent claims (claims 1, 7, 10, 17) includes the limitation that the variable length coding (or decoding) of a second data block does not begin until after the end of variable length coding (or decoding) of a first data block, even if encoding (or decoding) of the second data block has already been completed. This is not fairly taught or suggested in the cited art.

The Examiner asserts that this feature is taught by Fujiwara. Applicant respectfully disagrees. First, Fujiwara does not teach that the variable length coding of a second block awaits the end of variable length coding of a first block, but rather teaches that “the address adder 119 waits without inverting the first and second selection signals respectively on the signal lines 120a and 120b and gives a wait signal to the VLD [variable length decoder] 101, even though the address adder 119 has received the EOB detection signal on the signal line 104. According to this arrangement, writing a third block *never starts before* reading and initializing the first block and writing a second block are completed.” (Fujiwara, 8:31-38). This feature taught by Fujiwara is simply not the same as the featured claimed by Applicant. That writing of a third block never starts before writing of the previous block is completed, does not disclose the claim limitation in question.

Second, Fujiwara does not teach parallel processing of variable length coding, and the wait operation disclosed in Fujiwara (col. 8, ln. 32) does not control the order of variable length coding in parallel processing. Nor does Fujiwara or any of the other cited art provide any suggestion or motivation to one of skill in the art to use the inventor’s particular method of variable length coding in parallel processing.

Further, the foregoing features are nowhere taught or fairly suggested by Allen et al., or the combination of Fujiwara et al. and Watanabe et al. In fact, as explained above, Fujiwara actually teaches away from the limitation that the variable length coding of a second data block begins after the end of variable length coding of a first data block. Accordingly, this limitation distinguishes the independent claims over the cited prior art.

Pending claims 2 - 6, 8 - 9, 11 - 16 and 18 - 19 are dependent claims that depend from independent claims 1, 7, 10 and 17 respectively. Because the independent claims are patentable over the cited art as discussed above, the dependent claims are likewise patentable over the cited references because they incorporate the limitations of their respective independent claim.

CONCLUSION

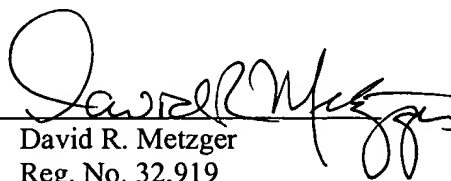
In view of the foregoing, Applicants respectfully submit that pending claims 1 – 19 are patentable. Further, all of the Examiner's objections and rejections have been addressed herein. It is, therefore, submitted that the application is in condition for allowance.

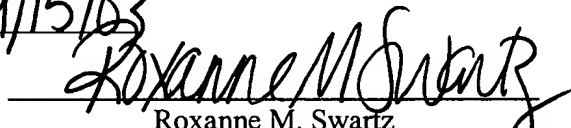
Notice to that effect is respectfully requested.

Respectfully submitted,
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